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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/963,312	09/26/2001	Tetsuo Ogushi	MAT-8188US	1310

7590 08/25/2005

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EXAMINER

CARBONELLO, MICHAEL J

ART UNIT	PAPER NUMBER
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2622

DATE MAILED: 08/25/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/963,312

Applicant(s)

OGUSHI, TETSUO

Examiner

Michael Carbonello

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26 September 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 26 September 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Specification

1. The specifications were received on 09/26/2001. The examiner accepts these specifications.

Drawings

2. The drawings were received on 9/26/2001. The examiner accepts these drawings.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1, 2, 4, 6, 7, 8, 12, 13, 15, 17, and 19 rejected under 35 U.S.C. 103(a) as being unpatentable over Plakosh et al in view of Inoue.
4. Plakosh et al discloses in column 2, lines 40-60, "According to the present invention, there is provided a method of transferring image data from a memory for application to printing hardware which is selectably capable of printing a regular image on sheet and an rotated image on a sheet, based on image data. There is retained in the memory a quantity of image data representative of an image to be printed, the image data being organized as a plurality of data units, with each data unit corresponding to one address in the memory. The addresses in the memory retaining the image data are organized in a series of addresses having an order associated

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therewith. Each data unit comprises a plurality of sets of bits of image data, with each set of bits relating to one pixel area in an image to be printed. For a regular image to be printed, a series of data units are transferred from the memory to the printing hardware in a forward order of addresses over time. For an rotated image to be printed, a series of data units are transferred from the memory to the printing hardware in a reverse order of addresses over time. For each transferred data unit in an rotated image to be printed, a relationship of sets of bits within the data unit are altered." Plakosh et al does not disclose, "a compression direction determining unit for determining sequence of compression of bit map data of a drawing band among said plural drawing bands based upon information from the upside-down print setting unit, and (d) a data compressing unit for compressing data of the selected drawing band selected by the band selecting unit according to the sequence determined by the compression direction determining unit."

Inoue discloses in Fig 1, a Main control [8], and a Compressor/Expander [5]. Therefore it would have been obvious at the time of invention to one of ordinary skill in the art to combine Plakosh et al with Inoue to produce an image processing apparatus with upside down printing, a selecting unit, and a process of data compression. The motivation is printing upside down allows another feature to be added to printing images, like printing double sided, and data compression is used to save time and space because the files will be reduced in size with out any image quality being sacrificed.

5. Regarding claim 2, Plakosh et al and Inoue disclose the methods and devices described above. Plakosh et al disclosed in column 2, lines 48-50; "The addresses in the memory retaining the image data are organized in a series of addresses having an order associated therewith." Using the broadest interpretation of the phrase, a "series of addresses having an order associated therewith"; it could represent a type of "linked list," for reversing the arrangement of drawing bands. Therefore it would have been obvious at the time of invention to one of ordinary skill in the art to combine Plakosh et al with Inoue to generate a printing system with upside down printing, a linked list for conversion, band selecting and data compression. The benefit of using a linked list is that each piece of information points to the piece of information next to it, making it easy to obtain data in forward order or in a reversed order.

6. Regarding claims 7, Plakosh et al and Inoue disclose the methods and devices discussed above. Plakosh et al further discloses in column 2, lines 55-58; "For an rotated image to be printed, a series of data units are transferred from the memory to the printing hardware in a reverse order of addresses over time." The benefit of combining a linked list as described above; with the benefits of upside down printing as described above, are that all the benefits of linked lists are combined with all the benefits of upside down printing with all the benefits of a data compression process.

7. Regarding claim 8 and 10, Plakosh et al and Inoue disclose the methods and devices described above, and Plakosh et al further teaches in column 5, line 29-36; "This forward order would, in this example, be satisfactory in printing a head-to-foot image. However, for a second-side image, wherein the image must be created foot-to-

head, it is necessary to start with the 4 millionth byte, corresponding to the bottom right corner and then work in reverse order down to byte 0 corresponding to the top left corner." Using the broadest interpretation "working in reverse order down to byte 0" is a method of printing from the end to the beginning, while referencing the end bands and head bands. Therefore it would have been obvious at the time of invention for one of ordinary skill in the art to utilize upside-down printing while referring to head bands and end bands of drawing bands. The motivation being that it sets up reference points for the drawing to be printed upside-down or right side up.

8. With respect to claims 6, 12, 13, 15, 17, and 19 Plakosh et al and Inoue disclose the methods and devices described above, specifically Inoue fig 1. Further Inoue discloses in Fig 1, a Picture Data Memory [4a]. Thus it would have been obvious at the time of invention to one of ordinary skill in the art to combine Plakosh et al with Inoue to produce system this able to access memory and compress data as needed. The benefit of this system is that it allows information to be reduced in size through compression without and loss of quality to the picture.

9. Claims 3, 5, 9, 11, 14, 16, 18, and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Manico et al in view of Inoue.

10. Regarding claims 3, 5, 9, and 11, Manico et al discloses in column 4, lines 13-15; "the hybrid system performs a mirror-image reversal of the stored digital positive color image." Manico does not disclose a, "a compression direction determining unit for determining sequence of compression of bit map data of a drawing band among said plural drawing bands based upon information from the upside-down print setting unit,

and (d) a data compressing unit for compressing data of the selected drawing band selected by the band selecting unit according to the sequence determined by the compression direction determining unit.” Inoue discloses in Figure 1, a Main control [8], and a Compressor/Expander [5]. Using the broadest reasonable interpretation, the main control [8] could be a type of band selecting unit. Therefore it would have been obvious at the time of invention to one of ordinary skill in the art to combine Manico et al with Inoue to produce an image processing apparatus with mirror reverse printing and a data compression process, that also has a band selecting unit. The motivation is that printing a mirror reverse allows another feature that is sometimes used to be added to the current printing techniques, and data compression is able to save time and space because the files will be reduced in size with out any image quality loss.

11. Regarding claims 14, 16, 18, and 20, Manico et al and Inoue disclose the methods and devices described above, and Inoue further discloses in Fig 1, a Picture Data Memory [4a]. Therefore it would have been obvious at the time of invention to one of ordinary skill in the art to combine Manico with Inoue to generate a printing apparatus that could produce mirror reversed images with data compression.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

12. Ogura et al discloses, “On these editing screens, editing operations for character strings to be printed on a label are performed. In the editing operations, even if a

character string is to be printed upside down, the screen is displayed in an erected state.”

13. Yawata et al discloses, “Set/cancel upside-down character printing.”

14. Stone discloses, “the printer driving software or firmware may be provided with a special character set so that the print head can be made to print characters right-side up or upside down.”

15. Zietlow discloses, “but the outputs are connected in opposite order, so that the signals supplied to lines 1 and 5 are reversed etc. This accomplishes the rotation of the data within the block by 180.degree.”

16. Hamada et al discloses, “A word processor with capability of printing characters in rotated orientations as well as in the normal upright orientation.”

17. Nakutani discloses, “the supplying means including means for inverting the dot pattern information upside down, as needed.”

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael Carbonello whose telephone number is (571) 272-0625. The examiner can normally be reached on Mon–Fri, 8:00am - 4:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner’s supervisor, Edward Coles can be reached on (571) 272-7402. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Michael Carbonello
Examiner
Art Unit 2622

MJC

JOSEPH R. PORZYWA
PRIMARY EXAMINER
ART UNIT 2622

Joseph R. Porzywa